

Claims

[c1] What is claimed is:

1. A self-positioning guard of a printer comprising:
a cover for blocking an access opening of the printer;
and
a positioning apparatus coupled to the cover for controlling movement of the cover;
wherein the positioning apparatus controls the cover to not block the access opening if the printer is printing.

[c2] 2. The self-positioning guard of claim 1 wherein the cover comprises:
a plate for blocking the access opening; and
a hinge coupled to the plate for allowing the plate to pivot away from the access opening.

[c3] 3. The self-positioning guard of claim 2 wherein the positioning apparatus drives the plate to swing via the hinge for controlling movement of the cover.

[c4] 4. The self-positioning guard of claim 2 wherein the access opening is used for delivering a sheet of print paper.

- [c5] 5. The self-positioning guard of claim 4 wherein the access opening is a paper-feeding entry positioned on a housing of the printer or a paper-ejecting exit positioned on the housing of the printer.
- [c6] 6. The self-positioning guard of claim 1 wherein the positioning apparatus comprises:
a motor for supplying a rotational motion; and
a Scotch yoke coupled to the motor for converting the rotational motion into a linear motion for moving the cover.
- [c7] 7. The self-positioning guard of claim 6 wherein the Scotch yoke comprises:
an arm for moving the cover; and
a disc coupled to the arm and the motor for transforming the rotational motion into the linear motion.
- [c8] 8. The self-positioning guard of claim 1 being applied to a dye diffusion thermal transfer printer.
- [c9] 9. The self-positioning guard of claim 1 being positioned inside a housing of the printer.
- [c10] 10. A printer comprising:
a housing having an access opening;
a cover for blocking an access opening; and
a positioning apparatus coupled to the cover for control-

ling movement of the cover;
wherein the positioning apparatus controls the cover to not block the access opening if the printer is printing.

[c11] 11. The printer of claim 10 wherein the cover comprises:
a plate for blocking the access opening; and
a hinge coupled to the plate for allowing the plate to pivot away from the access opening.

[c12] 12. The printer of claim 11 wherein the positioning apparatus drives the plate to swing via the hinge for controlling movement of the cover.

[c13] 13. The printer of claim 11 wherein the access opening is used for delivering a sheet of print paper.

[c14] 14. The printer of claim 13 wherein the access opening is a paper-feeding entry or a paper-ejecting exit.

[c15] 15. The printer of claim 10 wherein the positioning apparatus comprises:
a motor for supplying a rotational motion; and
a Scotch yoke coupled to the motor for converting the rotational motion into a linear motion for moving the cover.

[c16] 16. The printer of claim 15 wherein the Scotch yoke comprises:

an arm for moving the cover; and
a disc coupled to the arm and the motor for transforming the rotational motion into the linear motion.

[c17] 17. The printer of claim 10 being a dye diffusion thermal transfer printer.

[c18] 18. The printer of claim 10 wherein the positioning apparatus is positioned inside the housing.